

REMARKS

Reconsideration and withdrawal of the rejections set forth in the Office Action dated November 30, 2005, are respectfully requested. In the Office Action, claims 1-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,721,780 (Ensor et al.) in view of U.S. Patent No. 6,553,022 (Hartmaier). By this response, claims 1, 2, 5-10 and 13-15 are being amended. Support for newly added limitations may be found at, for example, page 8, line 19-page 9, line 12, and page 6, line 19-page 7, line 6.

The applicant's representative wishes to thank Examiner Nguyen for the interview on February 1, 2005. During the interview, the parties discussed Ensor, Hartmaier, and embodiments of the invention, some details from which are further discussed below. If Examiner Nguyen believes that any additional information regarding the interview is necessary, please let the undersigned attorney know.

Embodiments of the invention are first discussed below, followed by brief discussions of the applied references Ensor and Hartmaier. The distinctions between claim 1 and the applied references will then be discussed, followed by distinctions between the applied references and the remaining independent claims.

Embodiments of the Invention

Embodiments of the invention are directed to sharing a telecommunications resource. In particular, at least one embodiment assists a user in placing a telephone call via a shared modem, such as a modem in a shared modem pool that is accessible over a local access network shared by users of that local network. (The local network may be a fixed wireless network as now recited in dependent claims 5 and 13.) A problem with such sharing of a telecommunications resource is how to appropriately bill each user for his or her use of that resource. Embodiments of the invention solve this problem of sharing by providing a method to appropriately bill each user of this shared resource.

As an example, an apartment manager may offer a discount dial-out service for his various tenants. Tenants can access one or more shared modems, via a local network, to access an external public telephony network. However, when the modem dials the public telephony network, the network receives the phone number associated with that modem, rather than any phone numbers associated with the individual tenants. Under embodiments of the invention, phone numbers associated with each tenant can now be forwarded on to the public telephony network via the shared modem, so that switches within the public telephony network can accumulate appropriate charges and create individual bills or charges for each tenant.

As a result, by passing the tenant's or responsible caller's telephone number during the call to the telephony network, all normal billing and rating processes occur normally. Charges for toll and other calls can be sent to the responsible caller's service provider to be included on that caller's bill. See, e.g., page 8, lines 20-24. Without the applicant's system, the public telephony network would receive only the phone number associated with the shared modem and not know which of the various users accessing that modem should be billed.

Depending upon how sophisticated the user's telecommunications device is, the user's phone number may or may not be apparent to the shared modem pool. (The term "modem pool," as used in the application and claims, covers a modem pool with a single modem.) For example, a plain old telephone system (POTS) handset will not convey information to the shared modem pool about the originating phone number. Thus, embodiments of the invention employ database search techniques to identify a phone number for that user, which can then be included when forwarding the call from the shared modem pool to the telephony network for appropriate billing. See, e.g., page 9, lines 6-20.

The Ensor Reference

Ensor deals with a user authentication and security system for accessing a network via user terminals. Ensor explains that an advantage of the invention is that it prevents a user who has a subscriber terminal, but who is not registered, from

fraudulently downloading software via another, registered user's network connection (i.e., telephone line) by hooking up his terminal to the registered user's network connection. Fraudulently copying of the software once downloaded is further inhibited by providing subscriber terminals which, due to the fact they need not be computer systems, do not have alternate input/output devices (i.e., floppy drives) by which the software can be copied.

Column 3, lines 63-column 4, line 5. However, Ensor deals with a typical configuration where user terminals access a network via a dedicated modem, and thus a number associated with that terminal is passed via the modem to the public telephony network for appropriate billing. This is similar to many users who use personal home computers to access an internet service provider (ISP) such as EarthLink® or NetZero®—no shared telecommunications resources are involved, and thus there is no difficulty in appropriately billing users. With typical ISP access, each user is the sole user of all telecommunications resources, and there is no sharing. While these ISPs employ shared modem pools, the modems receive calls from users that include each user's telephone number. More importantly, the public telephony network forwarding the calls to the modems also receives the users' telephone numbers

The Hartmaier Reference

Hartmaier is directed to techniques to allow users of the telephone network to access a data network (e.g., the Internet), such as in conjunction with an ISP with which a user has an account. In particular, rather than having an ISP directly receive calls over the telephone network, an intermediary authorization component instead is used to receive such calls. (Similar to that described above, Hartmaier employs a modem pool, but this modem pool receives calls directly made by a user, and thus includes the user's telephone number.) After receiving a telephone call from a user, a determination is

made whether the user has a valid account at a specified ISP, and if so the user is given access to the data network via a data port of the authorization component.

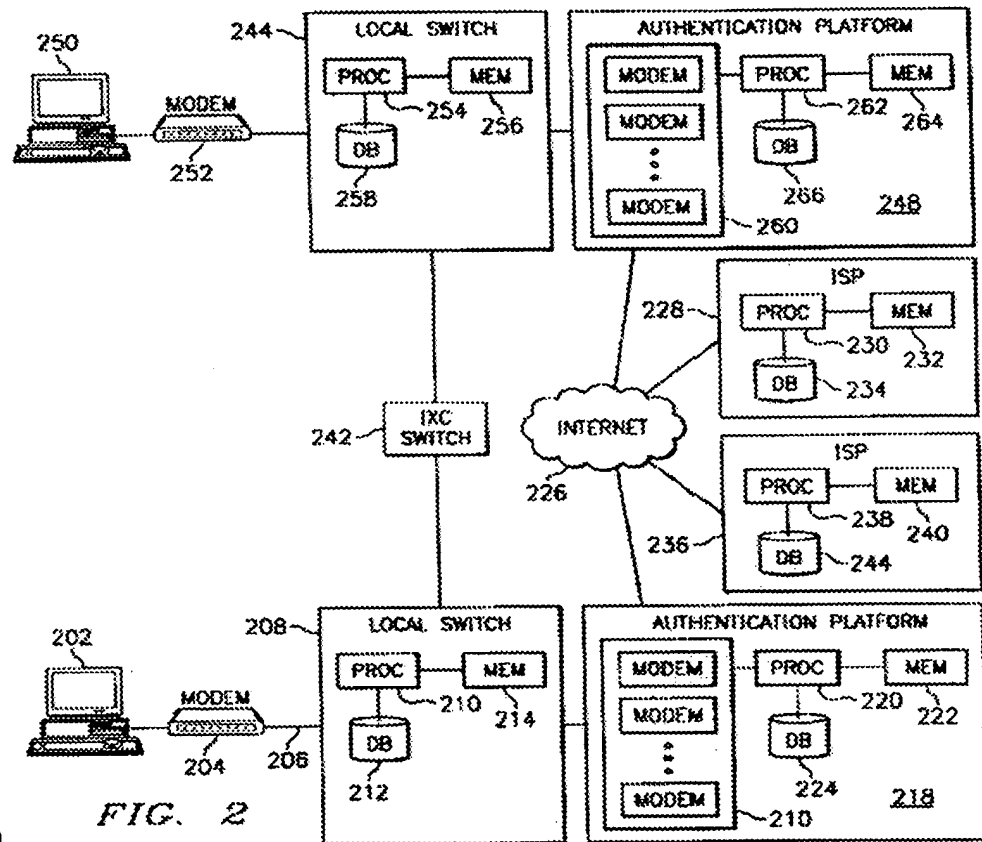
Like Ensor, the user computer of Hartmaier uses a local modem to directly access the public telephony network. However, the user computer uses an internet access number (IAN), which is described as the number "511." The local switch of the public telephony network recognizes the IAN as a non-routable telephone number and a request for access to the internet, as distinguished from a request to place an ordinary telephone call. Upon recognizing the IAN, the local switch connects the call to the authentication platform described in greater detail in Hartmaier. See column 4, lines 54-67.

Analysis

All of the pending claims are rejected based on Ensor in view of Hartmaier; however, the pending claims include features and provide functionality not disclosed by either Ensor or Hartmaier, and are thus allowable.¹

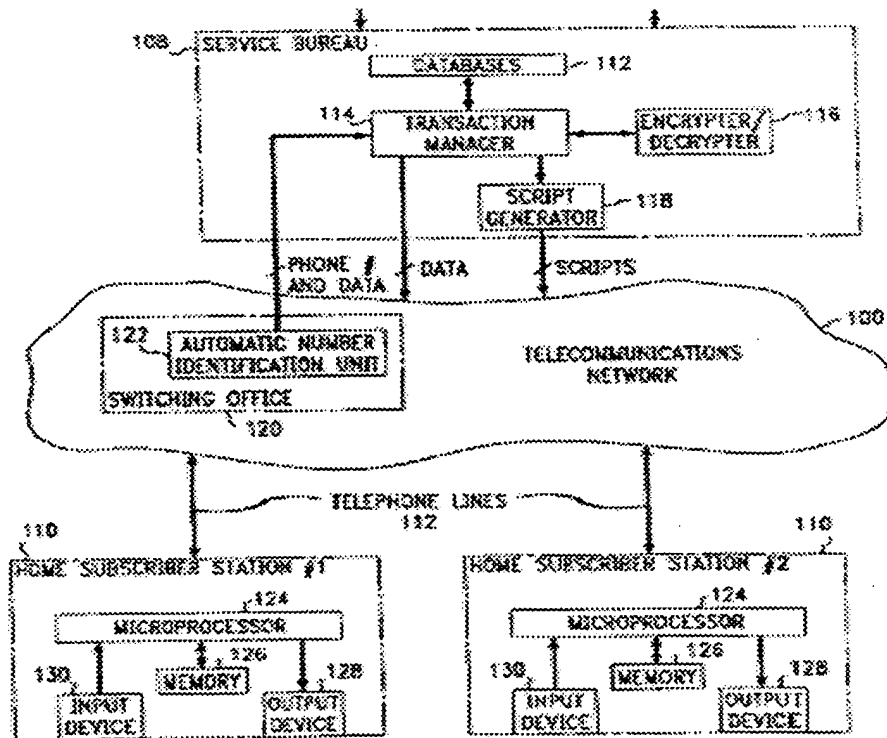
As noted above, neither Ensor nor Hartmaier disclose a shared local network and shared modem pool that together provide users with shared access to a public telephony network. Instead, both Ensor and Hartmaier disclose a standard, dedicated connection between a user and the network, and thus allocating billing for a shared resource is unnecessary. No shared network or modem pool precedes access to a public telephony network, as shown in the Figures below

¹ Silence regarding a position taken, or arguments made, by the Examiner does not indicate any acquiescence to that position or argument. Furthermore, arguments made with respect to a particular claim or claims apply only to that claim or claims, and not to other claims, unless specifically noted herein.

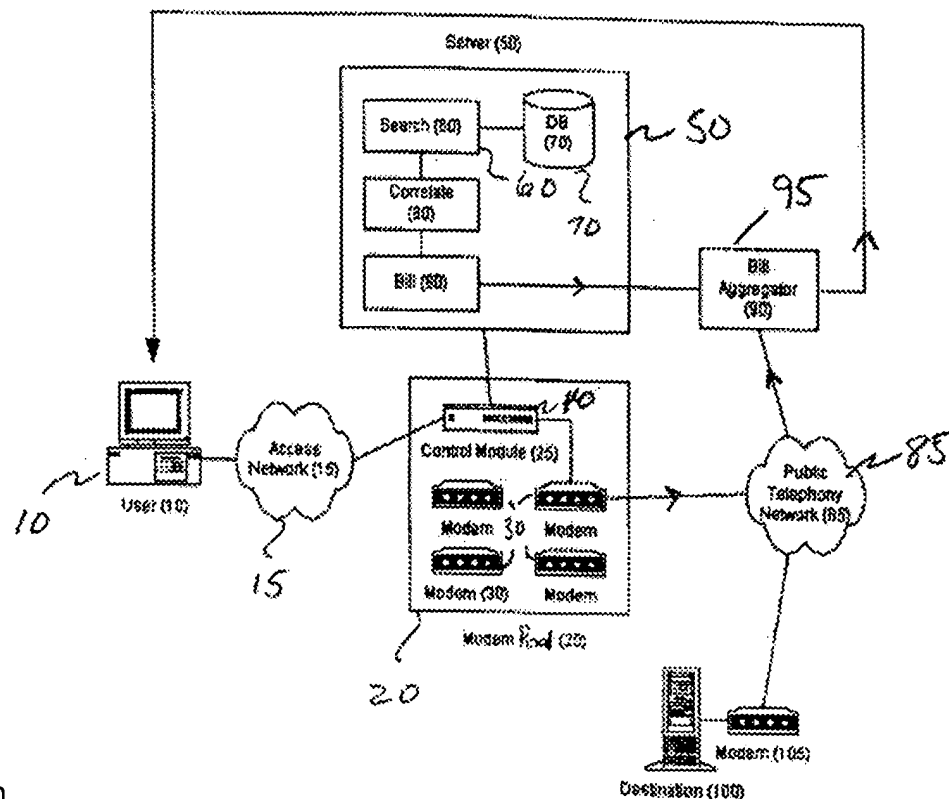


Ensor's System

FIG. 2



Hartmaier's System



Applicant's System

For example, Figure 1 of Ensor shows multiple home subscriber stations 110 connected by individual phone lines 112 to the telecommunications network 100. Each home subscriber station includes a modem that can provide to the telecommunications network a phone number associated with that modem. Column 4, lines 34-37 and 51-63. Likewise, each subscriber computer 202 in Hartmaier is associated with a modem 204 and a POTS line 206 to access the telephony network (in particular, a local switch 208). In contrast, the invention of claim 1 employs a shared local access network that shares at least one modem among multiple users, where the shared local access network and shared modem pool together provide shared access to the public telephony network. Figure 1 above from the present application shows user computer 10 that accesses public telephony network 85 through local network 15 and modem pool 20 that precede access to the telephony network. Comparing applicant's Figure 1 with the above Figures from Ensor and Hartmaier, the systems of Ensor and Hartmaier

lack any shared local network or modem pool that precedes access to the public telephony network.

Thus, neither Ensor nor Hartmaier disclose or fairly suggest a telecommunications resource (such as a modem with its own telephone number) as shared among multiple users that each have their own unique phone numbers. As a result, neither Ensor nor Hartmaier disclose placing a telephone call through a shared modem pool to a public telephony network that includes the user's telephone number in addition to, or in lieu of, any telephone number associated with the shared modem pool as recited, among other limitations, in claim 1. By providing the user's telephone number, call charge information from the public telephony network may be forwarded so that the user is billed for the call, while other users of the shared modem pool are separately billed for other telephone calls they place, as recited in claim 1.

The remaining independent claims 6, 10 and 15 recite limitations similar to those of claim 1. For example, claim 6 recites that the user shares the modem pool and the local network with multiple other users, at least some of whom have unique telephone numbers, and wherein the modem pool provides access to the public telephony network. Further, claim 6 recites, among other limitations, where placing the call through the shared modem pool includes forwarding the unique telephone number of the user to the public telephony network to permit the public telephony network to provide appropriate billing information for the user who placed the telephone call. Claim 10 is a system claim and recites, among other limitations, that the server is able to obtain a phone number associated with the user via the telephone call, and to provide the user's telephone number to the public telephony network in addition to, or in lieu of, any telephone number associated with a shared modem pool. Claim 10 also recites a search module that is configured to provide the user's telephone number if the user's telephone number is not provided via the telephone call. Claim 15 recites many limitations from claims 1 and 6, but is a computer-readable medium-type claim.

The pending dependent claims include the features of those claims from which they depend, and are thus allowable for the same reasons as those claims. Moreover, the pending dependent claims also recite additional features lacking in the cited references, and are thus allowable on the basis of those features as well, although those various features are not enumerated here for the sake of brevity. If the undersigned attorney has overlooked a relevant teaching in any of the references, the Examiner is requested to point out specifically where such teaching may be found.

Conclusion

In view of this response, the applicant believes the pending application is in condition for allowance. Applicant therefore respectfully requests the Examiner to reconsider this application and timely allow all pending claims. Moreover, if the Examiner believes that it will expedite resolution of any outstanding issues, Applicant encourages the Examiner to contact the Applicant's representative at (206) 359-3599.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 50-0665, under Order No. 101948058US from which the undersigned is authorized to draw.

Dated: 2/28/05

Respectfully submitted,

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